





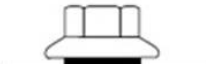
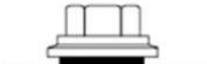


Fastener Installation guide for Direct Metals, Inc. Fasteners.

Please select the proper screw gun for installing metal to metal and metal to wood fasteners.

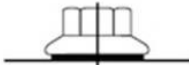


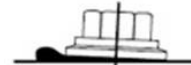
Set the magnet in the driving socket to the proper depth. Socket must bear securely on the hex washer face of the fastener.

Use depth sensing nosepiece on screw gun to allow proper seating of the fastener.

Do not overdrive. (See illustration.)

	Metal to Metal Fasteners	Metal to Wood Fasteners
CORRECT Sealing material slightly visible at edge of metal washer. Assembly is weather tight.		
UNDERDRIVEN Sealing material not compressed, Assembly loose.		
OVERDRIVEN Sealing material extruded beyond edge of washer. Washer deformed.		

Drive fastener perpendicular to surface.

Metal to Metal Fasteners		Metal to Wood Fasteners	
CORRECT	INCORRECT	CORRECT	INCORRECT
			

RECOMMENDED MINIMUM WIRE GAUGE* FOR EXTENSION CORDS

RATED AMPER-ERS	EXTENSION CORD LENGTH					
	25'	50'	75'	100'	150'	200'
Through 5	16	16	16	14	12	12
5.1 - 8.0	16	16	14	12	10	-
8.1 - 12.0	14	14	12	10	-	-
12.1 - 15.0	12	12	10	10	-	-

Selecting an installation tool:

Use screw guns with torque relief devices

Always see fastener data sheet for suggested installation practices.

General rule for metal to wood carbon steel and 410 stainless steel fastener use a 2,500 rpm max screw gun.

General rule for metal to metal carbon steel and 410 stainless steel fastener use 2,000 rpm max screw gun.

General rule for 304, 305 and 316 stainless steel fasteners use 1,000 rpm max screw gun.

Avoid using impact drivers as it may overdrive fasteners, crack protective finishes on fasteners, washer guards and or panels.

Selecting an fastener:

Use fastener with the appropriate level of corrosion resistance for specified application.

Use a fastener that is galvanically cooperative with the base metal or substrate.

See the chart

Base Metal	Fastener Metal					
	Zinc & Galvanized Steel	Aluminum & Aluminum Alloys	Steel & Cast Iron	Brasses, Copper, Bronzes, Monel	Martensitic Stainless (Type 410)	Austenitic Stainless Steel (Type 302/304, 303, 305)
Zinc & Galvanized Steel	A	B	B	C	C	C
Aluminum & Aluminum Alloys	A	A	B	C	Not Recommended	B
Steel & Cast Iron	AD	A	A	C	C	B
Terne (Lead Tin) Plated Steel Sheets	ADE	AE	AE	C	C	B
Brasses, Copper, Bronzes, Monel	ADE	AE	AE	A	A	B
Ferritic Stainless Steel (Type 430)	ADE	AE	AE	A	A	A
Austenitic Stainless Steel (Type 302/304)	ADE	AE	AE	AE	A	A

Key:
A: Corrosion of the base metal is not increased by the fastener.
B: Corrosion of the base metal is marginally increased by the fastener.
C: Corrosion of the base metal may be markedly increased by the fastener material.
D: Plating on the fasteners is rapidly consumed, leaving the bare fastener metal.
E: Corrosion of the fastener is increased by the base metal.

General rules and common mistakes:

Not all stainless steel fasteners are alike or offer corrosion free performance. Please see DMI guide to stainless fasteners to see the difference between 300 series and 400 stainless steel fastener grades.

For applications within 3000 Inft of salt water, chlorine, or other corrosives use full 304 series stainless steel fasteners.

For applications into pressure treated lumber use only full 300 series stainless fasteners unless otherwise specified.

Some panels or substrates may be harder than 300 series stainless steel fasteners, pre drill of galvanized panels must be done in order to avoid thread turn or point burn out.

When fastening through Aluminum panels pilot holes must be drilled cleaned and sealed prior to fastener installation.

When fastening through Polycarbonate, Fiberglass, or PVC pre drilled pilot holes larger in diameter than the fastener shank but smaller than the washer diameter must be pre-drilled to allow for panel expansion and contraction.

Torque fasteners to approx. 70% of torsional strength as washer allows.

To find a distributor call 855-800-8878 or visit www.directmetalsinc.com